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WIRELESS TELECOMMUNICATIONS BUREAU UPGRADES ULS TO ACCEPT ELECTRONIC MAPS WITH PARTITIONING AND LEASE APPLICATIONS

By this Public Notice, the Wireless Telecommunications Bureau (Bureau) announces that, effective November 5, 2015, it will accept geographic information system (GIS) files for partitioning and disaggregation (P&D) and leasing applications in the Universal Licensing System (ULS). Applicants also may continue to identify the relevant area by selecting markets or counties, or by inputting geographic coordinates. GIS is a computer-based tool that analyzes, stores, manipulates, and visualizes geographic information on a map. The Bureau believes that allowing GIS shapefiles for P&D and leasing applications will provide greater accuracy in specifying geographic areas and will be more efficient for applicants who use the GIS data that is available in ULS for their licensed boundaries. In addition, this new feature will give immediate feedback to applicants in the event a geographic proposal is inconsistent with an existing market boundary or does not represent a valid shape.

Certain Commission service rules permit geographic partitioning and spectrum disaggregation of licenses. In general, licensees may partition a geographic area on the basis of existing geographic boundaries, such as by Commission-recognized service areas or counties. Alternatively, licensees may define their own partitioned area by whatever boundaries they may see fit? (referred to as "undefined area partitioning"). In the case of undefined area partitions, the applicable service rules generally require that applicants define the boundaries of an undefined area by submitting geographic coordinates in degrees, minutes, and seconds.⁴

¹ See, e.g., 47 C.F.R. §§ 22.513(b), 24.104(b), 80.60(b)(1), 90.813(b)(1), 90.911(b)(1), 90.1019(b), 95.823(b)(1), 101.56(a)(2)(ii), 101.1111(c)(1).

² See, e.g., id.

³ See, e.g., FCC Form 603, Instructions for Schedule C. Page 19.

⁴ See, e.g., 47 C.F.R. §§ 22.513(b), 24.104(b), 24.714(b)(1), 27.15(b)(1), 80.60(b)(1), 90.365(b), 90.813(b)(1), 90.911(b)(1), 90.1019(b), 95.823(b)(1), 101.56(a)(2)(ii), 101.535(b)(2), 101.1111(c)(1), 101.1323(b)(3). A number of the rules governing undefined partitioned areas state that the undefined partitioned area shall be defined by up to 120 sets of geographic coordinates at points every 3 degrees or by coordinate points at every 3 degrees along the partitioned service area. See, e.g., 47 C.F.R. §§ 22.513(b), 24.104(b), 80.60(b)(1), 90.813(b)(1), 90.911(b)(1), 95.823(b)(1), 101.56(a)(2)(ii), 101.1111(c)(1). We note that FCC Form 603 states that applicants proposing to assign an undefined geographic area should "enter up to 300 pairs of latitude/longitude coordinates, one pair for every 3

While the use of geographic coordinates permits licenses to provide a reasonably accurate description of an undefined partition area, the Bureau believes that licensees and applicants can more accurately and easily specify precise undefined licensed area boundaries by using GIS computer files, which reflect a map of the proposed undefined partitioned area (in the case of an assignment) or proposed undefined lease area (in the case of a spectrum leasing arrangement). Using a map that can be molded to fit the exact borders of an undefined area helps ensure that our licensing and spectrum leasing information is more accurate. Furthermore, using a mapping program in lieu of submitting coordinates helps ensure that applicants avoid encompassing areas not intended to be partitioned or omitting areas intended to be partitioned. Moreover, modifying requirements to permit GIS files affords increased flexibility to licensees and applicants to use a variety of programming tools to partition areas. Because ULS now provides downloadable GIS files of boundaries for auctioned licenses, this new interface will provide licensees with an option to simply upload the proposed P&D or leased area, rather than manually entering less precise geographic coordinates.

Since April 2015, license map files in ULS have been available in GIS shapefile format,⁵ and we will continue to store and track map files in GIS format going forward.⁶ Licensees and the public now can download GIS map files to view detailed boundaries, thus placing at the fingertips of interested parties – in a centralized location – the FCC information necessary to determine quickly and accurately an area that is intended for P&D. Providing access to these map files online reflects the Commission's long-standing commitment to upgrade and improve its procedures and requirements to take advantage of new and readily available software technologies.

As stated above, however, certain longstanding rules for specifying undefined licensed area boundaries in P&D and leasing applications require applicants to define the undefined area by entering coordinates in degrees, minutes, and seconds and do not allow for the use of GIS files. Therefore, on our own motion and effective immediately, we hereby waive sections 22.513(b) (Paging and Radiotelephone Service), 24.104(b) (Narrowband Personal Communications Service), 24.714(b)(1) (Broadband Personal Communications Service), 27.15(b)(1) (Advanced Wireless Service and Wireless Communications Services), 80.60(b)(1) (Public Coast Stations), 90.365(b) (Intelligent Transportation Systems Radio Service), 90.813(b)(1) (900 MHz Specialized Mobile Radio Service), 90.911(b)(1) (800 MHz Specialized Mobile Radio Service), 90.1019(b) (220 MHz Service), 95.823(b)(1) (218-219 MHz Service), 101.56(a)(2)(ii) (38.6-40.0 GHz Service), 101.535(b)(2) (24 GHz Service), 101.1111(c)(1) (Local Multipoint Distribution Service), 101.1323(b)(3) (Multiple

degrees azimuth around the periphery." FCC Form 603, Instructions for Schedule C, Page 19. The Form 603 instructions further state: "If the area is a defined geographic shape, the Applicants can provide fewer than 300 coordinates, in which case the FCC will assume that these coordinate points are joined by straight lines. For example, a rectangle can be described by four coordinates, a hexagon by six coordinates, and so on." *Id.* ULS Form 608, for spectrum leasing, contains similar language, although it directs applications to provide up to 120 coordinates. ULS Form 608, Schedule G, Instructions for Schedule for Leases that Involve an Undefined Geographic Area.

⁵ The shapefile format is actually four individual files (.dbf, .shp, .shx, and .prj) all with the same prefix. This format is generally recognized as a standard file for GIS data. The shapefile is accepted in just about every GIS software package.

⁶ GIS files that define the market boundaries for auctioned licenses are available at: https://www.fcc.gov/encyclopedia/geographic-information-systems.

Address Systems), and 101.1415(c)(2) (Multichannel Video Distribution and Data Service)⁷ as necessary to provide licensees the option to utilize GIS shapefiles for P&D and lease applications, while retaining the ability of licensees to manually enter coordinates in degrees, minutes, and seconds.⁸ In addition, we note that licensees may use this waiver to supplement the instructions for Schedule C of our Form 603.

Procedures for Uploading GIS files

When entering a P&D or lease application in ULS going forward, the application will appear the same until the applicant selects a call sign. After selecting a call sign, the applicant will be taken to a new screen. This screen will provide a map of the licensed areas and the spectrum associated with those areas. These areas may be downloaded and the downloaded file modified using mapping software. At this screen, the applicant will also have the opportunity to select spectrum and areas for P&D or leasing. Areas may be defined by either:

- Selecting full and/or partial counties
- Entering coordinates to define an area
- Uploading a CSV or GIS file that defines the area⁹

Both geometry and frequency validation will be used by ULS to ensure that the licensee actually holds the area and spectrum listed in the P&D or lease application. The system also will validate that the area does not extend outside licensed area boundary or contain self-intersections that would prevent the area from displaying properly. For example, if the applicant submits a shape that exceeds the existing licensed area boundaries, the system will not recognize it as a valid polygon and the applicant will receive the following alert: "Geometry Invalid please try again." In addition, the 300 point limitation on coordinates is lifted so areas can be accurately depicted using pipe-delimited CSV files.

In developing the new GIS feature and applying GIS software to existing coordinates submitted with prior P&D and leasing applications, we have discovered certain errors in the licensed boundaries for a number of existing licenses. We have provided a list of the licenses we believe to have such errors at the following link: https://www.fcc.gov/encyclopedia/pnd. Applicants may further identify the type of error the license contains by querying the call sign using ULS License Search, and then clicking the "Map" tab on the search results screen to view a map of the license. Holders of the licenses containing errors should contact the FCC Licensing Customer Support line at 1-877-480-3201 to work with Bureau staff to correct any errors.

⁷ 47 C.F.R. §§ 22.513(b), 24.104(b), 24.714(b)(1), 27.15(b)(1), 80.60(b)(1), 90.365(b), 90.813(b)(1), 90.911(b)(1), 90.1019(b), 95.823(b)(1), 101.56(a)(2)(ii), 101.535(b)(2), 101.1111(c)(1), 101.1323(b)(3), 101.1415(c)(2).

⁸ Pursuant to section 1.3 of the Commission's rules, the Commission may waive any provision of its rules on its own motion if good cause therefor is shown. 47 C.F.R. § 1.3.

⁹ The following file formats may be uploaded: Shapefile, KML, Geojson, Coordinate CSV.

¹⁰ These errors include overlapping authorizations, unintended partitioned areas, licensed areas that exceed the originally licensed boundaries, and areas containing self-intersections that create an invalid shape.

To assure that the Commission's files contain accurate and complete information, we will require that where a license contains such errors, the license data must be corrected by the licensee, working with Bureau staff to update ULS, before the Bureau will approve a future P&D or lease application submitted through the new ULS interface. In order to avoid any delay in the processing of P&D and lease applications, the Bureau encourages all licensees to correct any license errors prior to beginning a P&D or lease application by contacting FCC Licensing Customer Support at the number above; once the license has been corrected in ULS, the applicant then may proceed as normal with the application using the new interface.

If an applicant has not corrected any errors prior to filing a P&D or lease application using the new interface, ¹¹ the applicant should fill out the application form and include an attachment with a GIS file identifying the new area to be partitioned or leased. ¹² An FCC staff member will then contact the applicant to correct the license before processing the P&D or lease application. ¹³

The Wireless Bureau will host a webinar demonstrating the new software on November 17, 2015, at 10:30 AM Eastern Time.

To join the webinar online:

- 1. Go to https://fccevents.webex.com
- 2. At the Join an Unlisted Event page enter Event Number 998 488553 and click Join Now
- 3. At the **Register** for event page provide the required information including the meeting password: **fcc123** and click on **Submit**
- 4. Once registered you will receive a confirmation email message containing instructions for joining the event, the password and the link for the meeting.
- 5. Information for joining the audio portion of the meeting will appear as a popup when you join the meeting. If it does not appear you may use the following to join the audio portion of the meeting:

Call Number: 1-888-858-2144

Access Code: 9639001

Reasonable accommodations for people with disabilities are available upon request. Include a description of the accommodation you will need and tell us how to contact you if we need more information. Make your request as early as possible. Last minute requests will be accepted, but may be impossible to fill. Send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty). The webinar also will be available for

¹¹ For example, if the application must be filed after normal business hours when the FCC Licensing Customer Support line is unavailable.

¹² To create this attachment, the licensed areas may be downloaded from the "Map" tab, and the downloaded file may be modified using mapping software.

¹³ By contrast, if the license contains no errors, the applicant simply would upload his GIS file and the transaction would be processed as normal.

future viewing on the Commission's website. Please contact FCC Licensing Customer Support for further guidance on how to locate and view it.

For additional information or assistance contact the FCC Licensing Customer Support at 1-877-480-3201 or via the web at: https://esupport.fcc.gov/request.htm, or contact: Chris Miller, Geospatial Data Specialist, Technologies, Systems and Innovations Division, (202) 418-1328, Chris.Miller@fcc.gov (technical/mechanical questions).